

Capabilities & Technical Portfolio 2026

Engineering Precision in 3D. Hard-Surface Modeling, CMF Design, and Multi-Layer Structural Cutaways for Global Industrial Leaders.

THE STUDIO MANIFESTO

Traditional product photography fails when communicating complex internal geometries, multi-layer industrial components, and sub-surface material behaviors. **MAUROSILVASTUDIO** bridges this gap by combining rigorous hard-surface 3D modeling, advanced PBR shading, and CMF (Colors, Materials, Finishes) design aligned with strict international engineering standards.

TECHNICAL PIPELINE & STACK

Blender & Cycles Engine

Production-proven GPU-accelerated path tracing utilizing AgX color management for cinematic dynamic range, physically accurate light dispersion, and hyper-realistic micro-surface interaction.

Procedural Architecture

Advanced parametric automation using Geometry Nodes and Python scripting (bpy) to generate flawless multi-core electrical cables, terminals, and intricate industrial structures.

FEATURED CASE STUDY: HIGH-VOLTAGE XLPE CABLE ARCHITECTURE

A comprehensive multi-layer cutaway study visualizing industrial power transmission cables under ISO/IEC manufacturing standards. Designed for technical marketing, engineering manuals, and B2B pitches.

- **Stranded Aluminum Conductor (IEC 60228):** High-purity multi-wire core engineered for optimal electrical conductivity and flexibility.
- **XLPE Insulation Layer (Cross-Linked Polyethylene):** High-dielectric solid polymer providing superior thermal and electrical breakdown resistance.
- **PVC Inner Sheath / Bedding:** Structural bedding layer providing mechanical isolation and core concentricity.
- **Copper Wire Shield / Metallic Armor:** Electromagnetic shielding and physical protection against environmental stress.
- **HDPE / PVC Outer Sheath (Anti-UV):** Heavy-duty industrial jacketing formulated for weathering and abrasion resistance.

ADVANCED PBR SHADING & CMF CALIBRATION

Every asset undergoes rigorous calibration across roughness variance, metallic reflectance curves, and normal map frequency mapping to ensure exact material fidelity under extreme studio lighting matrices.

B2B APPLICATIONS

- **Engineering Manuals:** Clear cutaways for installation and maintenance documentation.
 - **Digital & Print Catalogs:** High-impact asset creation for global product catalogs.
 - **Commercial B2B Pitches:** Immersive visual decks for enterprise tenders and bids.
 - **Industrial Trade Shows:** Presentation-grade renders for booths and technical displays.
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CONTACT & INQUIRIES

Ready to showcase your engineering precision with uncompromising visual quality?

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